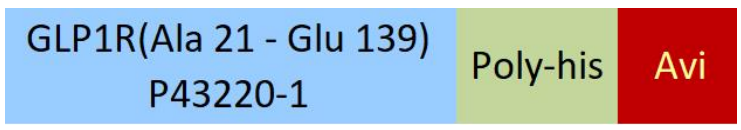
Synonym

GLP-1, GLP-1-R, GLP-1R, glucagon like peptide 1 receptor

Source

Biotinylated Human GLP1R Protein, His,Avitag(GLR-H82E3) is expressed from human 293 cells (HEK293). It contains AA Ala 21 - Glu 139 (Accession # P43220-1).
Predicted N-terminus: Ala 21

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 17.3 kDa. The protein migrates as 30-34 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

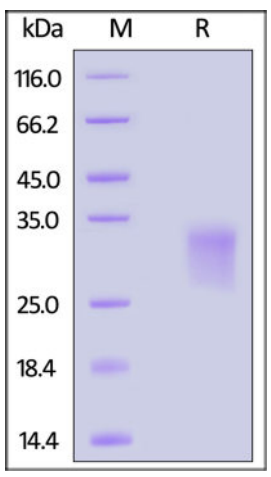
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

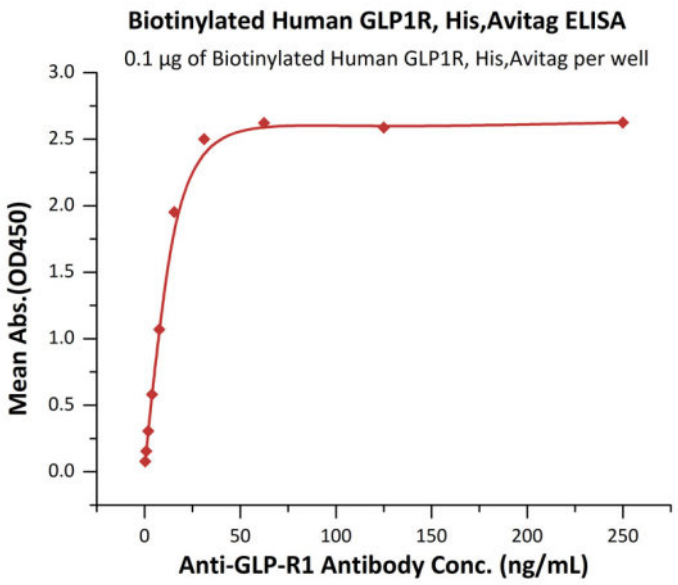
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



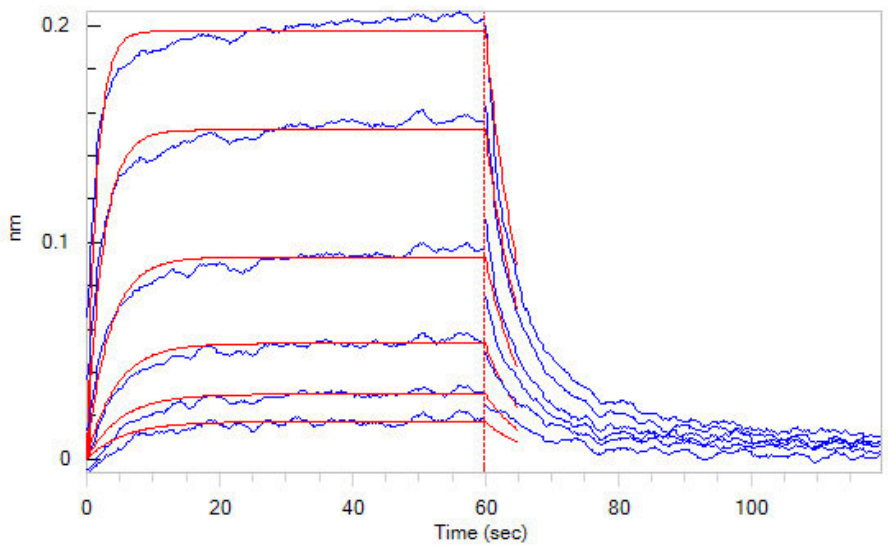
Biotinylated Human GLP1R Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Biotinylated Human GLP1R Protein, His,Avitag (Cat. No. GLR-H82E3) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Anti-GLP-R1 Antibody with a linear range of 0.5-31 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human GLP1R, His,Avitag (Cat. No. GLR-H82E3) on NTA Biosensor, can bind GLP-1 (7-37) with an affinity constant of 1.40 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

This gene encodes a 7-transmembrane protein that functions as a receptor for glucagon-like peptide 1 (GLP-1) hormone, which stimulates glucose-induced insulin secretion. This receptor, which functions at the cell surface, becomes internalized in response to GLP-1 and GLP-1 analogs, and it plays an important role in the signaling cascades leading to insulin secretion. It also displays neuroprotective effects in animal models. Polymorphisms in this gene are associated with diabetes. The protein is an important drug target for the treatment of type 2 diabetes and stroke.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.